

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte JACK E. CAVENEY*

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Appeal 2007-2478  
Application 10/613,062  
Technology Center 3600

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Decided: December 12, 2007

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Before WILLIAM F. PATE III, MURRIEL E. CRAWFORD, and  
JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 7-12, 20-24. We have jurisdiction under 35 U.S.C. § 6(b). (2002).

Appeal 2007-2478  
Application 10/613,062

This appeal arises from the Examiner's Final Rejection, mailed September 15, 2005. The Appellant filed an Appeal Brief in support of the appeal on February 21, 2006. An Examiner's Answer to the Appeal Brief was mailed on November 2, 2006. A hearing was held on November 14, 2007.

#### SUMMARY OF DECISION

We AFFIRM.

#### THE INVENTION

Appellant claims a cable tie which is said to have improved tensile strength. (Specification 1: [0002], [0004]).

Claim 7, reproduced below, is representative of the subject matter on appeal.

7. A cable tie, comprising:

an elongate metallic strap having a first end and a second end opposite the first end, a hooked portion formed integral with the first end and a return loop connecting the first end to the hooked portion, wherein the return loop includes at least one rib disposed thereon;

a metallic locking head secured to the first end of the strap for receiving the second end of the strap, the head comprising a strap entry face, a strap exit face, and a strap-receiving aperture extending therebetween, the head further comprising a floor and a roof which diverge in the direction of the exit face; and

Appeal 2007-2478  
Application 10/613,062

metallic roller means for lockingly engaging the strap, the head comprising retention means disposed adjacent the exit face for captively holding the roller means within the head,

the roller means being movable between a threading position wherein the roller means is disposed adjacent the exit face and the retention means, and a locking position wherein the roller means is closer to the entry face.

#### THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Thurston	US RE. 25,769	Apr. 27, 1965
Sauer	US 4,300,270	Nov. 17, 1981
Blanks	US 5,732,446	Mar. 31, 1998
Andersen	US 6,035,495	Mar. 14,2000

The following rejections are before us for review.

1. Claims 7-9, 11-12 and 20-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Blanks in view of Andersen and Sauer.
2. Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Blanks in view of Andersen and Sauer, and further in view of Thurston.

#### ISSUE

The first issue before us is whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting the claims on appeal

as being unpatentable under 35 U.S.C. § 103(a) over the prior art of record. Specifically, Appellant contends: 1) that Blanks, Andersen, Sauer and Thurston taken alone or in combination, fail to disclose “a cable tie having a return loop connecting one end of a strap to an integral hooked portion, with the return loop including at least one rib disposed thereon” (Br. 8); and 2) that this combination is improper because the Examiner has failed to look at the invention “as a whole” (Br. 9).

The second issue before us is whether Blanks discloses a locking head having a lead-in portion.

#### FINDINGS OF FACT

We find the following facts by a preponderance of the evidence:

1. The Examiner found that “Blanks discloses all the limitations of applicants claimed invention except for a rib disposed along the return loop and indentations in the opposite sides of the head” (Final 2).

2. The Examiner found that “Blanks discloses a metal cable tie with a return loop (28) that connects the hook (26) to the tie strap (27, figure 2). Blanks doesn't show a stiffening rib on the return.” (Answer 7)

3. Blanks discloses a head which has a strap receiving passage 21 extending through the head front to rear into which passage the end A of the strap is inserted at the front F of the head. (Blanks, col. 2, ll. 55-58, col. 3,

ll. 39-42).

4. The Examiner found “Andersen discloses using a reinforcing rib (13) on a return loop (12', figure 1) and Sauer discloses the use of a plurality of indentations (49, 49a) on the housing of a hose clamp. Both the reinforcing rib and indentations strengthen the clamps. Also, Sauer discloses that the use of a plurality of reinforcing indentations further increases the strength of the clamp” (Final 2).

5. Andersen discloses a clamp defined generally by a band 12 (Andersen col. 2 ll. 6-7) and the Specification similarly describes the cable tie 22 as being defined by an elongate strap (Specification 1: [0029]).

6. Andersen discloses that a reinforcing rib 13 is formed on one end of the band 12 adjacent a juncture 12' (Andersen col. 2, ll. 10-12).

7. We find that the clamp in Andersen is sufficiently similar to the tie in Blanks to warrant improving the tie in the same way that the clamp in Andersen is improved by the stiffening rib 13.

#### PRINCIPLES OF LAW

Under 35 U.S.C. § 103, a claimed invention is unpatentable if the

Appeal 2007-2478  
Application 10/613,062

differences between the subject matter sought to be patented and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.”

*KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: “[1] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved.” 383 U.S. at 17. See also *KSR*, 127 S.Ct. at 1734.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* and *Andersen's-Black Rock* are illustrative-a court must ask whether the improvement is more than the predictable use of prior art elements according to their established

functions.

*KSR*, 127 S. Ct. at 1740.

## ANALYSIS

We sustain the rejection of claim 7 under 35 U.S.C. § 103 (a) over Blanks in view of Andersen and Sauer. The Appellant does not provide a substantive argument as to the separate patentability of claims 8<sup>1</sup>, 11, 12 and 20-24 that depend from claim 7, which is the sole independent claim from which these claims depends. Therefore, claims 8, 11, 12, 20-24 fall with claim 7. *See*, 37 C.F.R. § 41.37(c)(1)(vii)(2004).

We also affirm the rejection of dependent claim 10 since Appellant has not challenged such with any reasonable specificity (*See In re Nielson*, 816 F.2d 1567, 1572, (Fed. Cir. 1987)).

Appellant asserts error on the part of the Examiner in regard to the rejection of claim 7 under 35 U.S.C. § 103(a) based on the combination of Blanks, Andersen and Sauer in that these references when “taken alone or in combination, [do not] disclose a cable tie having a return loop connecting one end of a strap to an integral hooked portion, with the return loop including at least one rib disposed thereon” (Br. 8). We disagree. The combination of at least Blanks and Andersen meets the requirements of

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<sup>1</sup> A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim. See, 37 C.F.R. § 41.37 (c)(1)(vii) (2004)

claim 7.

The Examiner found “Blanks discloses all the limitations of Appellant’s claimed invention except for a rib disposed along the return loop and indentations in the opposite sides of the head” (FF 1). The Examiner further found that “Blanks discloses a metal cable tie with a return loop (28) that connects the hook (26) to the tie strap (27, figure 2). Blanks doesn’t show a stiffening rib on the return. (FF 2). These findings are not contested by Appellant. In order to show that stiffening ribs on loop connectors were known by a person with ordinary skill in the art, the Examiner relies on Andersen which discloses using a reinforcing rib on a return loop of a clamp (FF 4). Hence, the combination of Andersen and Blanks includes all the features of claim 7. We therefore reject Appellant’s contention that the requirements of claim 7 are not met by the combination of Blanks and Andersen and Sauer<sup>2</sup>.

Appellant next asserts that the Examiner erred in finding that “it would have been obvious to one of ordinary skill in the art to add strengthening ribs to Blanks’ metal tie band, to increase the strength of the tie band and to improve the reliability of the tie band” (Br. 8, 9) by using the reinforcing rib (13) formed on a return loop (12') in Andersen on the corresponding return loop in Blanks (Br. 8, 9). In support of this contention,

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<sup>2</sup> Sauer was cited for the teaching of indentations on the tie head as required by claims 20-24. Since claims 20-24 have not been argued separately, we consider Sauer cumulative to the combination under 35 U.S.C. § 103(a).

Appellant asserts that “it appears that the Examiner is not looking at the invention ‘as a whole’, but instead is improperly focusing on the differences between the claims and the references …” (Br. 9), and that “one of ordinary skill in the cable tie art would not be motivated by any teachings of a one-piece, circular hose clamp, when determining how to improve cable tie performance” (Br. 10). We disagree.

We consider the circular clamp in Andersen to be a device similar to the tie of Blanks, and thus conclude that a technique, such as using a stiffening rib 13 on the return loop 12' of Andersen, would be recognized by a person of ordinary skill in the art to improve similar devices in the same way. *KSR*, 127 S. Ct. at 1740. Both devices in Blanks and Andersen are similar in that each wraps an item(s) within the circular confines of the band (FF 2, 5). Both the circular clamp and the tie have a locking mechanism which holds the tightened loop against circumferential forces acting on the band, and each such locking mechanism is capable of selectively adjusting the diameter of the loop. We thus conclude that the clamp in Andersen is sufficiently similar to the tie in Blanks to warrant improving the tie in the same way that the clamp in Andersen is improved by the stiffening rib 13 (FF 7).

Finally, Appellant argues that no lead-in portion at the entry face of the head in Blanks, as required by claim 9, has not been identified by the Examiner in the Final Office Action dated September 15, 2005, and thus the

Appeal 2007-2478  
Application 10/613,062

35 U.S.C. § 103(a) rejection of that claim is error. However, we find that Blanks discloses a head which has a strap receiving passage 21 extending through the head front to rear, and into which passage the end A of the strap is inserted at the front F of the head (FF 3). Claim 9 sets forth no details as to the specific structure of the lead-in portion except that it is located at the lead-in portion of the head. The entrance to the passage 21 at the front F of the head 10 in Blanks meets this limitation because it is the immediate opening to the passage 21, and thus is the lead-in portion to the passage. Therefore, we sustain the rejection of claim 9 under 35 U.S.C. § 103(a) based on the combination of Blanks and Andersen and Sauer.

#### CONCLUSIONS OF LAW

We conclude Appellant has not shown that the Examiner erred in rejecting claims 7-9, 11-12, 20-24 under 35 U.S.C. § 103(a) over Blanks in view of Andersen and Sauer.

2. We conclude Appellant has not shown that the Examiner erred in rejecting claim 10 under 35 U.S.C. § 103(a) over Blanks in view of Andersen and Sauer, and further in view of Thurston.

#### DECISION

The decision of the Examiner to reject claims 7-12, and 20-24 is affirmed.

Appeal 2007-2478  
Application 10/613,062

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

**AFFIRMED**

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